

## Developing a transplant program: The beginning of liver transplant activity in eastern India

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Like elsewhere in the world, Liver transplant activity in India had pursued a course where the pains of the initial failures have paved the way to a countrywide vibrant initiative, as it is now. This has taken a span of 15 long year's perseverance, since the first unsuccessful liver transplantation in 1995. The number of living donor liver transplants (LDLTs) has increased exponentially over the years in a few centres of North India. The rate of deceased donor liver transplantation (DDLT) is very low in North India, though it has been successful in South India. Liver transplantation activity in our country is primarily restricted to private/corporate health sector. Attempts in the public sector had largely been low-key endeavours. Failure of the recognition of the burden of liver disease by the health policy makers and resultant paucity of focussed plan in this regard could be one of the determinants.

It is worth mentioning that attempts in the state of West Bengal to materialise the dream of orthotopic liver transplantation in the public sector marked the beginning of the poor peoples' accessibility to this life saving procedure. The first living donor liver transplantation at the Institute of Post Graduate Medical Education and Research of Kolkata in the year 2009 in a child of Biliary Artesia moved the conscience of the common people in the state. The situation changed from 'It may happen' to 'It is happening'. Although, it will take few more time to inculcate the concept of 'brain death' before DDLT becomes a reality.

The problems faced by the transplant enthusiasts in this part of the country are many. To enumerate the major hurdles, lack of funding for a high cost procedure like this, lack of social awareness among the masses about organ donation, brain death, lack of medical awareness among the intensivists about declaring brain death and approaching

the relatives about organ donation and lack of adequate intensive care units to treat head injured probable organ donors.

As liver transplantation is a high stake surgery with minimum margin for errors, to minimize the chances of learning from our own mistakes we at IPGMER collaborated with a high volume transplant centre (CLBS, Indraprastha Apollo Hospital, New Delhi) with no financial involvement.

Funding was arranged partly from the state government, partly from donation of NGOs like Liver Foundation of West Bengal and from the recipients.

The cost of the procedure at IPGMER was approximately Rs. 8 lakh in uncomplicated cases. As the blood component therapy was outsourced from a private blood bank, the provision of this facility alone can cut down the cost by about Rs. 1.5 lakh.

**Social awareness:** The first transplant in 2009 was widely reported in local print and electronic media. In two cases, we went to the villages of the donor (cadaveric as well as live related) with NGOs and held meeting with the family members along with the villagers and local important functionaries. This was required to allay misconception about organ donation, to establish that there is no financial interest on the part of the hospital or doctors.

After the cadaveric transplant, although unsuccessful there was a lot of discussion regarding brain death and organ donation in the local newspapers and television channels, which we believe, will prepare the ground for future cadaveric transplantation. As there is a high rate of body donation for medical teaching after death in West Bengal, it is expected if the awareness and infrastructure are in place, organ donation will gain pace here.

## THE IPGMER–CLBS, APOLLO DELHI JOINT EXPERIENCE

A total of six transplantations were attempted from 2009 to 2010. In one case as the recipient was opened up, he suffered cardiac arrest, he was revived but the operation was terminated

for further evaluation of his cardiac status. Later he was discharged from the hospital in stable condition without transplantation. The corresponding donor, who was also opened up by the time the recipient operation was abandoned did recover without any complication.

No.	Transplant type	Recipient Diagnosis	Donor	Graft type	Recipient outcome	Comment	Donor outcome
1	LDLT	6 months/male/ Biliary atresia, CLD	Father/28 years	Left lateral segment	Successful	2 years, doing well	No complications
2	DDLT	47 years/female/ CLD	Cadaver/46 years/ male	Whole liver	Failure	Primary nonfunction, marginal donor	
3	LDLT	26 years/female/ Still's disease/ALF	Aunt/53 years	Right lobe	Failure	Neurological irreversibility	No complications
4	LDLT	41 years/male/ cryptogenic CLD	Wife/38 years	Right lobe	Failure	Small for size	No complications
5	LDLT	9 years/male/PFIC, CLD	Mother/25 years	Left lobe	Successful	4 months, doing well	No complications

It is our belief that this collaboration involving mentorship of a new program by a high volume centre can serve

as a role model for spreading transplant activity to other government–run institutions in the Indian subcontinent.